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(54) Title: METHODS AND COMPOSITIONS FOR DETECTION OR QUANTIFICATION OF NUCLEIC ACID SPECIES

(57) Abstract

The present invention provides a method for detecting a target nucleic acid species using an array of probes affixed to a substrate and a plurality of labeled probes. The invention also relates to oligonucleotide probes attached to discrete particles wherein the particles can be grouped into a plurality of sets based on a physical property. A different probe is attached to the discrete particles of each set, and the identity of the probe is determined by identifying the discrete particles from their physical property. The invention further relates to methods using agents which destabilize the binding of complementary polynucleotide strands (decrease the binding energy) or increase stability of binding between complementary polynucleotide strands (increase the binding energy). The figure is an illustration of an apparatus for mass producing probe arrays.